



## PRIMARY/INTERMEDIATE

**Objectives** Students will be able to: (1) *explain* how litter can provide a way for animals to meet their needs; (2) *describe* the harmful consequences to animals and to human health when animals make their homes in litter. Students will improve their abilities to find information and to *write creatively*.

**Method** Students use sources of information to research the needs of animals and to *infer* how these animals could make homes out of various littered items designated on a handout. Negative consequences to animals and to human health are discussed, and plays or puppet shows are produced based on this information.

**Duration:** five to six class periods

**Setting:** classroom

**Subjects:** Science, Language Arts

**Curriculum Reference:** 4.1

**Preparation** Collect resource information (encyclopedias, nature books, textbooks) about animal habitats, including how animals move and their requirements for breeding and shelter. You will

also need materials to make costumes or puppets. It would be especially helpful, in regard to the creative writing exercises, if you could find one of the two books listed below to read to the class.

Bodecker, N.M. *The Mushroom Center Disaster*; Illus. Erik Blegvad. Atheneum, 1974.

Foote, Timothy. *The Great Ringtail Garbage Caper*; Illus. Normand Chartier. Houghton Mifflin, 1980.

**Vocabulary** habitat, harmful, health, litter, shelter

**Handouts** *Litter Homes; Litter Attraction*

## Procedures

1. Briefly discuss unusual ways that animals might use litter: a straw used as a home by insects, or a snake living inside a discarded cooler. Do not mention items on the handout, *Litter Homes*, for examples.
2. Distribute the handout, *Litter Homes*, following your discussion. You may want to have students divide into groups of four or five to work on it. In order to complete the handout have students research insects and/or animals they think could make homes in the litter based on their requirements for shelter and/or food and/or reproduction. You may want to provide a list of insects and animals appropriate to consider: rats, roaches, flies, mosquitoes, snakes, etc. Reasons given by students on the handout might include statements like the following: "Roaches need a dark, damp environment so an old damp boot left out in the rain may serve as a home." "Mosquitoes like to breed in still water, such as water trapped in old tires." "Mice could find shelter from their predators in a boot." You may want to have students find examples of litter in addition to those on the handout and suggest what animals could make use of these and for what reasons.
3. Discuss answers to the handout from two viewpoints.
  - a. How can these animals harm humans? Check to see which students' answers include rats, mosquitoes, flies, roaches, snakes and others that can clearly be harmful by spreading disease and/or biting and infecting people.

- b. How can animals themselves be harmed by relying on these unnatural sources of shelter (e.g. Water could get trapped in a boot and drown small insects living there. Animals could inhale styrofoam and suffocate. They can ingest styrofoam and starve because their appetite becomes suppressed, yet they are without nourishment. Chemicals in tubes or circuits of TV could kill an animal. Animals get cut on broken glass.
4. Students should work in groups of four or five. Each group is to select one type of litter habitat from the handout. They are to write a script giving the point of view of the animal(s) living in that litter habitat. The script could include the animal's feelings about humans, why they have chosen this piece of litter as a home, etc. To give students an idea of possible scenarios you could read one of the books mentioned in the **Preparation** to students.
5. When scripts are written, the students can act out the play or they can present it as a puppet show.

**Evaluation** Ask students to write down the following claim: "Even though litter may provide homes for animals, natural homes for animals are better because litter can harm animals and it provides homes and nourishment for animals that cause harm to humans." Have students explain the claim orally or in writing. Give students the handout, *Litter Attraction*, to complete. Have each student present his or her drawing to the class and post these on the bulletin board. In each case, ask students how the piece of litter was disposed of improperly and if the object could be recycled or not.

**Directions:** Animals, both small and large, can make homes out of trash. For each item below name an animal that could use it for a home and explain why.

## OLD TIRES



Animal: \_\_\_\_\_

Reason: \_\_\_\_\_

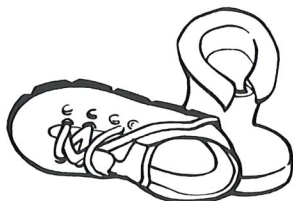
## CANS: ALUMINUM OR METAL



Animal: \_\_\_\_\_

Reason: \_\_\_\_\_

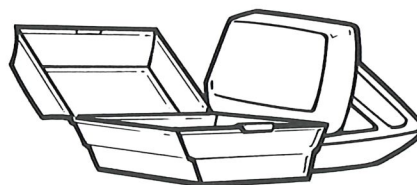
## OLD BOOTS &amp; SHOES



Animal: \_\_\_\_\_

Reason: \_\_\_\_\_

## STYROFOAM CONTAINERS



Animal: \_\_\_\_\_

Reason: \_\_\_\_\_

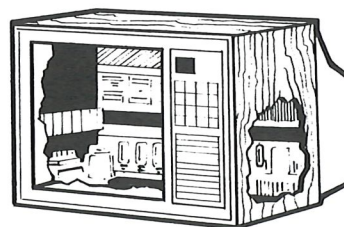
## GLASS



Animal: \_\_\_\_\_

Reason: \_\_\_\_\_

## JUNKED TELEVISION



Animal: \_\_\_\_\_

Reason: \_\_\_\_\_



**Directions:** Draw the piece of litter that is attracting these flies.

